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| **Halifax County Schools Elementary School Lesson Plan** | | | | | | | | |
| Subject: MATH | **Teacher:** | | | **Grade Level: Second Grade** | | **Date(s): October 3-7, 2016** | | |
| **Content :**  Common Core Standards & Essential Standards | **2.OA.1.** Use addition and subtraction within 100 to solve one- and two-step word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem  **2.NBT.2** Count within 1000; skip-count by 5’s, 10’s, and 100’s  **2.MD.10** Draw a picture graph and a bar graph (with single-unit scale) to represent a data set with up to four categories. Solve simple put-together, take-apart, and compare problems1 using information presented in a bar graph. | | | | **Can Statements /Learning Targets** (I can……..)  I can add or subtract to solve one-step word problems using equations and drawings.  I can skip count by five, ten, or hundreds to 1,000.  **I can solve word problems using the data from a bar graph.**  I can draw a picture graph to represent data with up to four categories.  I can draw a bar graph to represent data with up to four categories. | | | |
| Essential Question(s): (What question(s) should students be able to answer at the end of the lesson/unit?) | What strategy did you use to solve the word problems? Why does it work?  Can I explain the value of each digit in a three-digit number (place value)?  What data was used to create picture or bar graphs? What strategy did you use to interpret and analyze? | | | | **Standards for Mathematical Practice:**  **1. Makes sense and perseveres in solving problems.**  2. Reasons abstractly and quantitatively.  3. Constructs viable arguments and critiques the reasoning of others.  **4. Models with mathematics.**  5. Uses appropriate tools strategically.  **6. Attends to precision.**  **7. Looks for and makes use of structure.**  8. Looks for and expresses regularity in repeated reasoning. | | | |
| **Technology Connection:**  <http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm>  <http://www.learningbox.com/Base10/BaseTen.html>  <http://www.sheppardsoftware.com/mathgames/placevalue/MatchingPV.htm>  <http://www.arcademicskillbuilders.com/games/alien/alien.html> | | | |
| **Vocabulary:**  Academic/Content | equation, sum, difference, add, subtract, symbol, addend, subtrahend, minuend, unknown, combine, put together, take apart, compare, skip count, addition, subtraction, count, sequence, collect, organize, display, show, data, attribute, sort, line plot, picture graph, bar graph, most, least, more than, less than, same, different | | | | **Literature Connection:**  The Great Graph Contest – Loreen Leedy  How Many Feet in a Bed – Diane Johnston Hamm  Sir Cumference and All the King’s Tens – Cindy Neuschwander  12 Ways to Get to 11 – Eve Merriam  Lemonade for Sale – Stuart J. Murphy | | | |
| **Materials Needed:** | * Double Ten Frames for each student * Red/Yellow Counters | * Addition/Subtraction Flashcards * Addition/Subtraction Strategies Anchor chart (from last week) | | | * Blank Bar Graph Sheet (folder) * Base 10 sets for pairs * Base 10 Recording Sheet | | | * Graphing Bags * 4 - 5 index cards per student |
| **Center Rotation Activities** | **Math with Teacher**  Teacher will work with result unknown, change unknown, and start unknown addition and subtraction word problems with small groups. | **Math Fluency or Assessment**  **2 OA 1** & **2 NBT 9** Assessment  ***2 OA 2*** *&* ***2 NBT 9*** *Assessment*  *(PLC Folder-week 6)* | | | **Technology**  <http://www.sheppardsoftware.com/mathgames/placevalue/fruit_shoot_place_value.htm> Students will match base 10 blocks with numbers. | | | **Writing About Math**  Students will be given a bag of items to graph. Give them a blank graph sheet for this. Write a story about what the graph tells them. |
| **Monday**  **Subject Integration:** | **Whole Group (Making 10 Strategy Review)**  Have students turn and talk to find out what they already know about using the Making a Ten strategy for addition. Remind students to listen carefully to their partners and then select students to share what their partner said about the strategy. Pose the problem “8 + 6 = \_\_\_” on the board and ask students to use their whiteboards to work together to use the Making a Ten strategy to solve. Look for evidences of understanding. Choose a couple of student leaders to explain how they solved the problem using the Making a Ten strategy to the whole group. Tell students the focus of today’s lesson will be learning to use this strategy.  Distribute a “*Double Ten Frame”* to each student and about 20 counters. Ask students to watch and listen. Demonstrate how to solve the problem “8 + 6 = \_\_\_” by placing 8 yellow counters and 6 red counters at the bottom of the page. Think aloud, “*First I’ll put 8 yellow counters onto the first tens’ frame. How many more will it take to make a ten? Well, I have 8 and it looks like it will take 2 more. So I need to break apart the 6 red counters. I can use 2 red counters and place them on the first frame now I have made a ten, but I still have 4 red counters. So I’ll place them on the second ten’s frame. So my total is 14 because I know 10 + 4 = 14. That’s easy!* Now let’s see if you can try the making a ten strategy with me. Repeat step by step this time with students. Now have students model the 8 + 6 problem on their whiteboards. Make sure they keep their double tens frame made with the equation modeled on it. They will need to record what they just made using numbers. Have students write with you the original problem and then model how the addend of “6” is decomposed into a “2” and “4”. Then circle the largest addend (8) with the break apart addend (2) needed to make 10. Now the problem is 10 + 4. The answer is “14”. Continue guided practice with process adding similar problems such as 9 + 5, 6 + 7, 8 + 4. Always make sure the addends are represented in two different colors with the largest addend being made first on the double ten frame. Always ask students to then model each problem after they have made it using numbers to show the Making a Ten strategy when adding. | | | | | | **Assessment (formative/summative)** | |
| **Tuesday**  **Subject Integration:** | **Whole Group**  Review Making 10 Strategy using Double Ten Frame from yesterday. Model the problem 9 + 6 using the Double 10 Frame and then showing how the number six was decomposed into 1 & 5 (see the example above on Monday). Complete with several other examples with the students taking over more control of explaining the process.  **Independent Work**  Students will complete Making 10 Strategy Assessment found in PLC folder for week 6. | | | | | | **Assessment (formative/summative)**  Exit Ticket  Pass out a sticky note and ask students to choose one of the problems below to solve using the Making a Ten Strategy.  9 + 4 = \_\_\_\_  7 + 8 = \_\_\_\_  8 + 5 = \_\_\_\_ | |
| **Wednesday**  **Subject Integration:** | **Whole Group**  **Teacher needs to prepare ahead by reading the Common Addition and Subtraction Situation sheet found in PLC folder (General Resources). Teacher will also use the anchor chart for addition and subtraction so the students can classify the strategy needed to best solve the equations!**  Review the Addition/Subtraction math strategies anchor chart with the class. Have student volunteers present examples to the whole class using the Smartboard. Have addition and subtraction problems listed on chart paper. Model think-aloud process of how to choose and present a strategy. Put students in cooperative groups, triads, or pairs. Have them solve each equation and give strategy used to solve the equation.  **Independent Work**  Math Journal Prompt – Give each student an equation card (addition or subtraction). Have them solve the equation with the following information:   1. Draw a picture to solve. 2. Write and explain the strategy used 3. Write the answer in number word and expanded form 4. Draw place value form of the number. | | | | | | Math Journal entry can be used as formative or summative assessment. | |
| **Thursday**  **Subject Integration:** | **Whole Group**  Review 10 more/less and 1 more/less using base 10 blocks. Teacher will put a target number on the board. Model with base 10 blocks how to show the numbers that are 1 more/less and 10 more/less. Repeat this several times. Invite student volunteers to demonstrate the process to the whole class. Give pairs a set of base 10 blocks. Have them create the target number placed on the board. Alternate clues on what number to make: 1 more, 1 less, 10 more or 10 less!  **Independent Work**  Give 4 target numbers. Have students complete Base 10 recording sheet with drawings to show 1 more – 1 less – 10 more and 10 less! | | | | | | **Assessment (formative/summative)**  Base 10 recording sheet can be used as formative or summative assessment. | |
| **Friday**  **Subject Integration:** | ***Graphing Question for the day***: What is your favorite color?  Discuss morning graphing chart. Have students demonstrate tally marks to count the items. Teacher will then model a horizontal and vertical bar graph using the same information. Discuss “how many more” questions.  **Whole Group**  Inform students that today they will create their own data to graph. Have 4 – 5 bags on the table. Give each student 5 index cards. They are to write the following information on the cards and put them in the corresponding bag:  1: Favorite Candy- Choices( Snickers, M & Ms, Reese’s Cup, Skittles, Jolly Ranchers)  2: Favorite Season – Summer, Fall, Winter, Spring  3: Favorite Cookie – Chocolate Chip, Sugar Cookies, Ginger Snaps,  4: Favorite Subject – Math, Reading, Science, Social Studies, PE  Put students in groups of 3 -5. Give each group a bag to create the graph. After all graphs have been created, rotate groups to a different graph and have them write at least 4 sentences about the graph. Hang up graphs and corresponding group stories. Have each group do a gallery walk to determine if the stories correctly tell about the graph.  **Independent Work**  Have students write about the activity in their math journals. | | | | | | **Assessment(formative/summative)**  Math Journal entry can be used as formative or summative assessment. | |
| **Reflection-Checking for Understanding**  Students in need of remediation:  Action/Activities: | | | **Reflection-Checking for Understanding**  Students on target:  Action/Activities: | | | | **Reflection-Checking for Understanding**  Students who need enrichment:  Action/Activities**:** | |